

Product Texts

NORYL™ NHP5054 resin is a 20% glass reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V0 at 0.75mm for thin-wall molding capability. NORYL NHP5054 is based on a unique co-polymer technology and exhibits good dimensional stability, high heat resistance, strong electrical performance, and very low specific gravity. It is an excellent candidate for electrical vehicle (EV) battery housings, automotive under-the-hood enclosures and components where thin-wall FR, modulus retention, and high heat resistance are required.

UL Yellow Card Link [E207780-101793092](https://www.ul.com/yellow-card/E207780-101793092)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	22	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	10	kg	-
ASTM Data			
Melt Flow Index, MFI	24	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	10	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	7300	MPa	ISO 527
Stress at break	110	MPa	ISO 527
Strain at break	2.4	%	ISO 527
Flexural modulus	6000	MPa	ISO 178
Charpy impact strength, +23°C	35	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	36	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	9	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	8	kJ/m ²	ISO 179/1eA
Ball indentation hardness	215	MPa	ISO 2039-1
ASTM Data			
Tensile Strength at Yield	120	MPa	ASTM D 638
Elongation at Break	2.5	%	ASTM D 638
Izod Impact notched, 1/8 in	100	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	115	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	122	°C	ISO 75-1/-2
Vicat softening temperature, B	128	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	130	°C	ISO 306
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-
Glow Wire Ignition Temperature (GWIT)	800	°C	IEC 60695-2-13
GWIT - thickness tested (2)	2	mm	-
GWIT - thickness tested (3)	3	mm	-

Other properties	Value	Unit	Test Standard
Humidity absorption	0.24	%	Sim. to ISO 62
Density	1270	kg/m ³	ISO 1183
Density	1300	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	105 - 110	°C	-
Pre-drying - Time	3 - 4	h	-

NORYL™ Resin NHP5054 - Europe

(PPE+PS)-GF20

Saudi Basic Industries Corporation (SABIC)

Processing humidity	≤0.02	%	-
Melt temperature	280 - 310	°C	-
Mold temperature	75 - 105	°C	-
Zone 1	250 - 300	°C	-
Zone 2	260 - 305	°C	-
Zone 3	270 - 310	°C	-
Screw speed	20 - 100	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Additives

Flame retarding agent

Special Characteristics

Flame retardant

Applications

Automotive

Regional Availability

Europe